AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-74. (Canceled)

75. (Withdrawn) A fuel cell in which plural unit cells each of which is formed by constructing an electrolyte layer on a fuel electrode body and constructing an air electrode layer on the electrolyte layer are connected and in which a fuel supplying member connected with a fuel storing tank for storing a liquid fuel and having a penetrating structure or the fuel electrode body is connected with the respective unit cells to supply the liquid fuel, wherein a liquid fuel occlusion body comprising a porous body and a fiber bundle having capillary force is accommodated in the liquid fuel storing tank.

76. (Withdrawn) The fuel cell as described in claim 75, wherein the liquid fuel is at least one selected from a methanol solution, dimethyl ether (DME), formic acid, hydrazine, an ammonia solution, ethylene glycol and a sodium boron hydride aqueous solution.

77. (Withdrawn) A fuel cell in which plural unit cells each of which is formed by constructing an electrolyte layer on a fuel electrode body and constructing an air electrode layer on the electrolyte layer are connected and in which a fuel supplying member connected with a fuel storing tank for storing a liquid fuel and having a penetrating structure or the fuel electrode body is connected with the respective unit cells to supply the liquid fuel, wherein a supplying mechanism for supplying the liquid fuel from the fuel storing tank to the fuel supplying member is provided with a collector body or a valve.

78. (Withdrawn) The fuel cell as described in claim 77, wherein the liquid fuel storing tank comprises an exchangeable cartridge structure.

79. (Withdrawn) The fuel cell as described in claim 77, wherein the collector body is produced by injection molding or stereolithography or the collector body is constituted from a single layer member.

80. (Withdrawn) The fuel cell as described in claim 77, wherein a surface free energy on the surface of the collector body is controlled to a higher value than that of the liquid fuel.

81. (Withdrawn) The fuel cell as described in claim 78, wherein the liquid fuel is continuously supplied from the cartridge structure to the fuel supplying member via a feed comprising a porous body and a fiber bundle having capillary force.

82. (Withdrawn) The fuel cell as described in claim 78, wherein a used liquid fuel storing tank is connected with an end of the fuel supplying member and the cartridge structure can be used as the used liquid fuel storing tank.

83. (Withdrawn) The fuel cell as described in claim 77, wherein the valve is opened by pressing the liquid fuel storing tank or the fuel supplying member to supply a fixed amount of the liquid fuel to the fuel supplying member.

84. (Withdrawn) The fuel cell as described in claim 77, wherein the valve is opened by pressing the liquid fuel storing tank and the fuel supplying member to supply a fixed amount of the liquid fuel to the fuel supplying member.

85. (Withdrawn) The fuel cell as described in claim 77, wherein the liquid fuel storing tank is a cartridge structure having a valve.

86. (Withdrawn) The fuel cell as described in claim 77, wherein the liquid fuel is at least one selected from a methanol solution, dimethyl ether (DME), formic acid,

hydrazine, an ammonia solution, ethylene glycol and a sodium boron hydride aqueous solution.

87.-115. (Canceled)

116. (Withdrawn) A fuel reservoir for a fuel cell which is a cartridge type fuel reservoir detachably connected with a fuel cell main body, wherein the cartridge type fuel reservoir is equipped with a fuel tank for storing a liquid fuel, a liquid fuel discharge part provided at a tip of the fuel tank and having a check valve and a liquid fuel pressing mechanism provided in the fuel tank ; and the liquid fuel stored in the fuel tank is pushed forward by the liquid fuel pressing mechanism to supply a fixed amount to the liquid fuel discharge part and a fixed amount of the liquid fuel is discharged from the liquid fuel discharge part.

117. (Withdrawn) The fuel reservoir for a fuel cell as described in claim 116, wherein the liquid fuel pressing mechanism is equipped at the rear of a fuel tank with a rotation operating member constituted by an outer cylindrical member and an inner cylindrical member which is non-rotatably inserted into the inside of the outer cylindrical member, a ratchet mechanism provided at a tip part of the outer cylindrical member in the rotation operating member and comprising ratchet teeth formed on an inner face of the fuel tank and locking pawls engaged with the ratchet teeth, a screw rod inserted into the inside of the inner cylindrical member in the rotation operating member and a piston provided at a tip part of the screw rod and inserted into the fuel tank so as to be slidable on the inner face in front of a partition wall protruded on an inner face of the fuel tank; a male screw part formed on an outer face of the screw rod screws with a female screw part formed at a front end of the inner cylindrical member, and the screw rod is inserted into an inserting pore of the partition wall and movable only in a longitudinal direction relative to the inner cylindrical member; the screw rod is rotated by a rotating operation of the outer cylindrical member in the rotation operating member to move forward by screwing with the female screw part, and a fixed amount of the liquid fuel is supplied to the liquid fuel discharge part by

means of the piston connected with a tip of the screw rod and a fixed amount of the liquid fuel is pushed out from the above liquid fuel discharge part.

118. (Withdrawn) The fuel reservoir for a fuel cell as described in claim 116, wherein the fuel tank has at least one oxygen barrier resin layer.

119. (Withdrawn) The fuel reservoir for a fuel cell as described in claim 118, wherein the oxygen barrier resin layer comprises at least one resin of ethylene·vinyl alcohol copolymer resins, polyacrylonitrile, nylon, polyethylene terephthalate, polycarbonate, polystyrene, polyvinylidene chloride and polyvinyl chloride.

120. (Withdrawn) The fuel cell as described in claim 116, wherein the fuel tank is formed by a material having a light transmittance of 50 % or more.

121. (Withdrawn) The fuel cell as described in claim 116, wherein a surface free energy on at least a wall surface of the fuel tank brought into contact with the liquid fuel is controlled to a lower value than that of the liquid fuel.

122. (Withdrawn) A fuel cell comprising a fuel cell main body and a cartridge type fuel reservoir detachably connected with the fuel cell main body, wherein assumed is a constitution in which the fuel cell main body connects plural unit cells each of which is formed by constructing an electrolyte layer on an outer surface of a fuel electrode body and constructing an air electrode layer on an outer surface of the electrolyte layer and in which the unit cells are connected with a fuel supplying member connected with the fuel reservoir for a fuel cell as described in claim 116 to allow a liquid fuel to be supplied.

123. (Withdrawn) A fuel reservoir for a fuel cell which is a cartridge type fuel reservoir detachably connected with a fuel cell main body, wherein the cartridge type fuel reservoir is equipped with a fuel tank storing a liquid fuel and having a waste fuel recovery aperture part, a liquid fuel discharge part provided at a tip of the fuel tank and having a check valve and a liquid fuel pressing mechanism provided in the fuel

tank; the liquid fuel stored in the fuel tank is pushed forward by the liquid fuel pressing mechanism to discharge a fixed amount to the fuel cell main body; and a space part in the fuel tank which is formed by the pressing mechanism is used as a waste fuel recovery tank for used fuel consumed in the fuel cell main body.

124. (Withdrawn) The fuel reservoir for a fuel cell as described in claim 123, wherein the liquid fuel pressing mechanism is equipped at the rear of a fuel tank with a rotation operating member constituted by an outer cylindrical member and an inner cylindrical member which is non-rotatably inserted into the inside of the outer cylindrical member, a ratchet mechanism provided at a tip part of the outer cylindrical member in the rotation operating member and comprising ratchet teeth formed on an inner face of the fuel tank and locking pawls engaged with the ratchet teeth, a screw rod inserted into the inside of the inner cylindrical member in the rotation operating member and a piston provided at a tip part of the screw rod and inserted into the fuel tank so as to be slidable on the inner face in front of a partition wall protruded on the inner face of the fuel tank; a male screw part formed on an outer face of the screw rod screws together with a female screw part formed at a front end of the inner cylindrical member, and the screw rod is inserted into an inserting pore of the partition wall and movable only in a longitudinal direction relative to the inner cylindrical member; the screw rod is rotated by a rotating operation of the outer cylindrical member in the rotation operating member to move forward by screwing with the female screw part, and a fixed amount of the liquid fuel is supplied to the liquid fuel discharge part by means of the piston connected with a tip of the screw rod and a fixed amount of the liquid fuel is pushed out from the liquid fuel discharge part.

125. (Withdrawn) The fuel reservoir for a fuel cell as described in claim 123, wherein the fuel tank has at least one oxygen barrier layer.

126. (Withdrawn) The fuel reservoir for a fuel cell as described in claim 125, wherein the oxygen barrier layer comprises at least one resin of ethylene·vinyl

alcohol copolymer resins, polyacrylonitrile, nylon, polyethylene terephthalate, polycarbonate, polystyrene, polyvinylidene chloride and polyvinyl chloride.

127. (Withdrawn) The fuel reservoir for a fuel cell as described in claim 126, wherein the oxygen barrier layer comprises a resin film on which a metal oxide is deposited; the metal oxide comprises one of alumina and silica or both of them; and the resin film comprises one of polyethylene terephthalate, polystyrene, polyethylene, polypropylene and nylon or a composite thereof.

128. (Withdrawn) The fuel reservoir for a fuel cell as described in claim 126, wherein the oxygen barrier layer comprises a resin film covered with diamond-like carbon (DLC); and the resin film comprises one of polyethylene terephthalate, polystyrene, polyethylene, polypropylene and nylon or a composite thereof.

129. (Withdrawn) The fuel cell as described in claim 123, wherein the fuel tank is formed by a material having a light transmittance of 50 % or more.

130. (Withdrawn) A fuel cell assuming a constitution in which a fuel cell main body connects plural unit cells each of which is formed by constructing an electrolyte layer on an outer surface of a fuel electrode body and constructing an air electrode layer on an outer surface of the electrolyte layer and in which the unit cells are connected with a fuel supplying member connected with the fuel reservoir for a fuel cell as described in claim 123 to allow a liquid fuel to be supplied.

131. (Withdrawn) A fuel cell comprising a fuel cell main body and a cartridge type fuel reservoir detachably connected with the fuel cell main body, wherein the cartridge type fuel reservoir is equipped with a fuel tank storing a liquid fuel and having a waste fuel recovery aperture part, a liquid fuel discharge part provided at a tip of the fuel tank and having a check valve and a liquid fuel pressing mechanism provided in the fuel tank; the liquid fuel stored in the fuel tank is pushed forward by the liquid fuel pressing mechanism to discharge a fixed amount to the fuel cell main

body; and used fuel consumed in the fuel cell main body is recovered in a space part of the fuel tank which is formed by the pressing mechanism.

132. (Withdrawn) The fuel cell as described in claim 131, wherein the fuel cell main body is provided with a used fuel storing tank, and the used fuel storing tank is connected with the waste fuel recovery aperture part having a check valve in the fuel tank.

133. (Withdrawn) A fuel cell assuming a constitution in which a fuel cell main body connects plural unit cells each of which is formed by constructing an electrolyte layer on an outer surface of a fuel electrode body and constructing an air electrode layer on an outer surface of the electrolyte layer and in which the unit cells are connected with a fuel supplying member connected with the fuel reservoir for a fuel cell as described in claim 131 to allow a liquid fuel to be supplied.

134. (Withdrawn) A fuel cell which connects plural unit cells each of which is formed by constructing an electrolyte layer on an outer surface of a fuel electrode body and constructing an air electrode layer on an outer surface of the electrolyte layer, in which a fuel supplying member connected with a fuel storing tank for storing a liquid fuel and having a penetrating structure or the fuel electrode body is connected with the respective unit cells to supply the liquid fuel and in which an end of the fuel supplying member is connected with a used fuel storing tank, wherein assumed is a constitution in which the used fuel storing tank is connected with the fuel storing tank and in which used fuel is supplied to the fuel storing tank and can be reused as the liquid fuel.

135. (Withdrawn) The fuel cell as described in claim 134, wherein the liquid fuel storing tank is equipped with a concentration sensor of the liquid fuel.

136. (Withdrawn) The fuel cell as described in claim 134, wherein a feed is disposed in a connecting part of the used fuel storing tank with the fuel storing tank .

137. (Withdrawn) The fuel cell as described in claim 134, wherein a feed is disposed in a connecting part of the used fuel storing tank with the fuel storing tank , and a collector body is further disposed.

138. (Withdrawn) The fuel cell as described in claim 134, wherein the collector body is produced by injection molding or stereolithography or the collector body is constituted from a single layer member.

139. (Withdrawn) The fuel cell as described in claim 134, wherein a surface free energy on the surface of the collector body is controlled to a higher value than that of the used liquid fuel.

140. (Withdrawn) The fuel cell as described in claim 134, wherein the used fuel storing tank or the fuel storing tank or a connecting part of the used fuel storing tank with the fuel storing tank is detachable.

141. (Withdrawn) The fuel cell as described in claim 134, wherein the used fuel storing tank and the fuel storing tank or a connecting part of the used fuel storing tank with the fuel storing tank is detachable.

142. (Withdrawn) The fuel cell as described in claim 134, wherein the used fuel storing tank or the fuel storing tank or a connecting part of the used fuel storing tank with the fuel storing tank is provided with an openable and closable cover.

143. (Withdrawn) The fuel cell as described in claim 134, wherein the used fuel storing tank and the fuel storing tank or a connecting part of the used fuel storing tank with the fuel storing tank is provided with an openable and closable cover.

144. (Withdrawn) The fuel cell as described in claim 78, wherein the liquid fuel is continuously supplied from the cartridge structure to the fuel supplying member via a feed comprising a porous body or a fiber bundle having capillary force.

145. (Currently Amended) A fuel cell in which plural unit cells each of which is formed by constructing an electrolyte layer on a fuel electrode body and constructing an air electrode layer on the electrolyte layer are connected, in which a fuel supplying member connected with a liquid fuel storing tank for storing a liquid fuel and having a penetrating structure or the fuel electrode body is connected with the respective unit cells to supply the liquid fuel and in which an end of the fuel supplying member is connected with a used fuel storing tank which is separate from the liquid fuel storing tank, the used fuel storing tank and ~~not in contact with~~ the liquid fuel storing tank configured to always be out of direct contact with each other, wherein the used liquid fuel storing tank is provided with a feed comprising a porous body or a fiber bundle having capillary force and a used fuel occlusion body comprising a porous body or a fiber bundle having capillary force so that the occlusion body is brought into contact with the feed to discharge a used fuel totally to the used fuel occlusion body via the feed, and the used fuel storing tank is hermetically closed except a part of a discharge port via the feed.

146. (Previously Presented) The fuel cell as described in claim 145, wherein the feed of the used fuel occlusion body has larger capillary force than that of the fuel supplying member.

147. (Previously Presented) The fuel cell as described in claim 145, wherein the used fuel occlusion body has larger capillary force than that of the feed.

148. (Previously Presented) The fuel cell as described in claim 145, wherein the used liquid fuel storing tank is detachable.

149. (Previously Presented) The fuel cell as described in claim 145, wherein the used liquid fuel storing tank is provided with an openable and closable cover so that the used fuel occlusion body can be taken in and out.

150. (Previously Presented) The fuel cell as described in claim 145, wherein the liquid fuel is at least one selected from a methanol solution, dimethyl ether (DME), formic acid, hydrazine, an ammonia solution, ethylene glycol and a sodium boron hydride aqueous solution.

151. (Currently Amended) A fuel cell in which plural unit cells each of which is formed by constructing an electrolyte layer on a fuel electrode body and constructing an air electrode layer on the electrolyte layer are connected, in which a fuel supplying member connected with a liquid fuel storing tank for storing a liquid fuel and having a penetrating structure or the fuel electrode body is connected with the respective unit cells to supply the liquid fuel and in which an end of the fuel supplying member is connected with a used fuel storing tank which is separate from the liquid fuel storing tank, the used fuel storing tank and ~~not in contact with~~ the liquid fuel storing tank configured to always be out of direct contact with each other, wherein the used liquid fuel storing tank is provided with a feed comprising a porous body or a fiber bundle having capillary force and a collector body to discharge a used fuel to the used fuel storing tank via the feed, and the used fuel storing tank is hermetically closed except a part of a discharge port via the feed.

152. (Previously Presented) The fuel cell as described in claim 151, wherein the collector body is produced by injection molding or stereolithography or the collector body is constituted from a single layer member.

153. (Previously Presented) The fuel cell as described in claim 151, wherein a surface free energy on the surface of the collector body is higher than that of the used liquid fuel.

154. (Previously Presented) The fuel cell as described in claim 151, wherein the used liquid fuel storing tank is detachable.

155. (Previously Presented) The fuel cell as described in claim 151, wherein the used liquid fuel storing tank is provided with an openable and closable cover.

156. (Previously Presented) The fuel cell as described in claim 151, wherein the liquid fuel is at least one selected from a methanol solution, dimethyl ether (DME), formic acid, hydrazine, an ammonia solution, ethylene glycol and a sodium boron hydride aqueous solution.

157. (Currently Amended) A fuel cell in which plural unit cells each of which is formed by constructing an electrolyte layer on a fuel electrode body and constructing an air electrode layer on the electrolyte layer are connected, in which a fuel supplying member connected with a liquid fuel storing tank for storing a liquid fuel and having a penetrating structure or the fuel electrode body is connected with the respective unit cells to supply the liquid fuel and in which an end of the fuel supplying member is connected with a used fuel storing tank which is separate from the liquid fuel storing tank, the used fuel storing tank and ~~not in contact with~~ the liquid fuel storing tank configured to always be out of direct contact with each other, wherein the used liquid fuel storing tank is provided with a feed comprising a porous body or a fiber bundle having capillary force and a used fuel occlusion body comprising a porous body or a fiber bundle having capillary force so that the occlusion body is brought into contact with the feed to discharge a used fuel totally to the used fuel occlusion body via the feed, and the used fuel storing tank is open.

158. (Previously Presented) The fuel cell as described in claim 157, wherein the feed of the used fuel occlusion body has larger capillary force than that of the fuel supplying member.

159. (Previously Presented) The fuel cell as described in claim 157, wherein the used fuel occlusion body has larger capillary force than that of the feed.

160. (Previously Presented) The fuel cell as described in claim 157, wherein the used liquid fuel storing tank or the used fuel occlusion body is detachable.

161. (Previously Presented) The fuel cell as described in claim 157, wherein the used fuel occlusion body has a fin shape.

162. (Previously Presented) The fuel cell as described in claim 157, wherein an aperture part of the used fuel storing tank is a fine aperture, and a surface free energy on an inner face of the used fuel storing tank and in the vicinity of the fine aperture part is lower than that of the used fuel.

163. (Previously Presented) The fuel cell as described in claim 162, wherein the used liquid fuel storing tank is provided with an openable and closable cover.

164. (Previously Presented) The fuel cell as described in claim 157, wherein the liquid fuel is at least one selected from a methanol solution, dimethyl ether (DME), formic acid, hydrazine, an ammonia solution, ethylene glycol and a sodium boron hydride aqueous solution.

165. (Currently Amended) A fuel cell in which plural unit cells each of which is formed by constructing an electrolyte layer on a fuel electrode body and constructing an air electrode layer on the electrolyte layer are connected, in which a fuel supplying member connected with a liquid fuel storing tank for storing a liquid fuel and having a penetrating structure or the fuel electrode body is connected with the respective unit cells to supply the liquid fuel and in which an end of the fuel supplying member is connected with a used fuel storing tank which is separate from the liquid fuel storing tank, the used fuel storing tank and ~~not in contact with~~ the liquid fuel storing tank configured to always be out of direct contact with each other, wherein the used liquid fuel storing tank is provided with a feed comprising a porous body or a fiber bundle having capillary force and a collector body to discharge a used fuel to the used fuel storing tank via the feed, and the used fuel storing tank is open.

166. (Previously Presented) The fuel cell as described in claim 165, wherein the collector body is produced by injection molding or stereolithography or the collector body is constituted from a single layer member.

167. (Previously Presented) The fuel cell as described in claim 165, wherein a surface free energy on the surface of the collector body is higher than that of the used liquid fuel.

168. (Previously Presented) The fuel cell as described in claims 165, wherein the used liquid fuel storing tank is detachable.

169. (Previously Presented) The fuel cell as described in claim 165, wherein an aperture part of the used fuel storing tank is a fine aperture, and a surface free energy on an inner face of the used fuel storing tank and in the vicinity of the fine aperture part is lower than that of the used fuel.

170. (Previously Presented) The fuel cell as described in claim 165, wherein the used liquid fuel storing tank is provided with an openable and closable cover.

171. (Previously Presented) The fuel cell as described in claim 165, wherein the liquid fuel is at least one selected from a methanol solution, dirnethyl ether (DME), formic acid, hydrazine, an ammonia solution, ethylene glycol and a sodium boron hydride aqueous solution.